ASL

Australian Society for Limnology Inc.

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AUSTRALIAN SOCIETY FOR LIMNOLOGY INC.

The Australian Society for Limnology (ASL) is an Australian-based scientific society whose focus is the study and management of inland waters. The ASL was established in 1961, and has a current membership of over 650 researchers, managers, engineers, teachers and tertiary level students from all states and territories. Members have a strong professional interest in inland aquatic issues, including the maintenance of biodiversity, the maintenance and/or restoration of water quality, and the wise use of aquatic resources. The Society also has a strong interest in fostering the scientific and intellectual development of tertiary students.

The Society includes members working in government agencies, tertiary institutions and many industries related to aquatic resources. Through their daily activities, members have contact with local communities and are in a sound position to interpret and advise on inland water issues. The Society has a substantial knowledge base, and has assumed a responsibility to ensure that this is available to those who manage inland waters.

Accordingly, the charter of the ASL is to further our understanding of Australia's inland waters and to promote their wise use and sustainable management. In this manner we will contribute to the continued existence of this valued resource and the maintenance and enhancement of the quality of life for all Australians.

The ASL regularly produces a newsletter with notes on limnological activities, articles of interest, book reviews and announcements of upcoming events likely to be of interest to Members.

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Material for publication in the **Volume 41 # 2 Issue** of the Newsletter should be sent to the Editor (Address on back page) by **Friday 27th June 2003.**

Volume 41 # 3 contributions are due **Friday 26th September 2003**.

All articles should be forwarded, if possible, as unformatted text on a disk or via email.

ASL Home Page - http://www.asl.org.au/

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Membership Information and contact details of the Regional Executive Members can be found at the back of this Newsletter.

FROM THE EDITOR

Well, where have the first two months of 2003 gone? Hope you've all settled into the IYFW - trust it's a good one for you all.

This small edition of your newsletter includes lots of "Congratulations" to members of ASL who have been awarded for their efforts, but not much on the news front from members. Let's try and make the next edition a bumper (or else)!!

Cheers

Rhonda Sinclair
Rhonda.Sinclair@csiro.au

PRESIDENT'S REPORT

A New Year, and importantly, the International Year of Freshwater. It's easy to be cynical about International Year of This or That but let us work this title to our advantage and this year make a special effort to raise the profile of ASL while keeping people alert to the importance and scarcity of Australia's freshwater resources. Perhaps that has not been so difficult with the current drought prevailing across much of Australia but we still need to maintain public awareness and reiterate the importance of rigorous research underpinning effective water resource management. The best way of doing this is personal. In your every day interactions with people, mention that this is the International Year of Freshwater and describe what you will be doing to protect and enhance our freshwater resources. I think you will be surprised at how few people even know that it is the IYFW! Maybe as few as know what 'limnology' means.

And this leads on to another theme. What better year than the IYFW to join ASL? Our society relies on its members for discussion and dissemination of research findings and management solutions. We rely heavily on students for their discoveries, enthusiasm and insights. We rely on staff in management agencies for their desire to keep abreast of recent findings, data bases, case studies and success stories. We rely on new members to join us, bringing their ideas, findings and questions to enhance the limnological dialogue that underpins ASL. Do you have a colleague or student who is not yet a member of ASL? Or perhaps they have let their membership lapse? Encourage them to rejoin and come along to the Warrnambool conference to catch up with old friends and meet new ones.

Some cause for great celebration and congratulations to ASL members Gene Likens and Max Finlayson - see later in this issue for details. Some upcoming opportunities to share our knowledge and widen the membership of ASL are at the 'Airs, Waters, Places' conference in Newcastle on 14-16th April, the Third Australian Wetlands Forum in mid-May, and the Ninth International Conference on River Research and Application running from 6-11 July in Albury to name a few. Some food for thought - Frederick Bouckaert attended a FASTS workshop on ASL's behalf and circulated a brief report to the Executive outlining some innovative ideas for fundraising, some tips for societies like ours, and some of the other ways in which FASTS could be involved in helping ASL. I liked the idea that our ASL Policy Documents such as the salinity one currently under preparation might also be co-released as a FASTS Occasional Paper or at least have wide media coverage coordinated through the journalist and reporting network of FASTS.

Finally, can I urge you all to think about nominating worthy candidates for this year's ASL Early Career Excellence Award? This is a splendid way to acknowledge the great contributions of our early career members, many of whom joined ASL as research students and are now among Australia's leading limnologists and water resource managers.

Andrew Boulton

MESSAGE FROM THE ASL WEBMASTER

Firstly, the password used for accessing the newsletter online at the ASL website will be changing just after the June newsletter is released. This is done to encourage non ASL members who read the newsletter online to join the ASL, rather than tracking down the password from colleges who are members (not that I'm sure many of you do this).

So, during the month of June, the password will change to "congress1203" (without the quotes), with the username remaining the same: "asl_news"

Speaking of the next ASL congress, online registration will soon be available, so keep your eyes on the email group or website. Due to the problems with last year's registration site, a new site has been found which should be much easier to use and be more reliable. It is a secure site, so if you trust us with your credit card number, don't be afraid to use it to register with.

Finally, Margaret Hart and I are working on the practicalities and cost of setting up the membership database on a secure server, so that members can log on with individual passwords and update their details (as well as renew their membership at the same time). If it turns out that it is easily set up and cost-effective, we will set it up and let you know about it. Those who don't have web access or want to update their details and renew their membership will still be able to do so, but the overall plan is to save time and money. I have no doubt that Margaret will be happy about that!

Cheers

Simon
email: webmaster@asl.org.au

The Ramsar Wetland Conservation Award Winners for 2002

Recognition of Excellence

Dr Max Finlayson (Australia)

Dr Max Finlayson (Australia) has been recognized for his great contributions both to the progress of wetland science and to the work of the Ramsar Convention, particularly in providing leadership to the work of the Convention's Scientific and Technical Review Panel (STRP) in the ten years since its creation. In addition to his research both in Australia and abroad, he was instrumental in the establishment of the Mediterranean Wetlands Initiative (MedWet) and has long worked closely with Wetlands International, serving on its Board of Directors and presently as its newly-elected President.

Dr Finlayson is one of only two individual contributors to wetland science honoured with Recognitions of Excellence in the 2002 round of Ramsar awards. The other is Dr Monique Coulet, of France.

He regards the Recognition as a culmination of a professional lifetime spent bridging the gap between science and people --- with the outcome of helping those people manage their environment. And he recognises that the task is far from over - wetlands and wetlands managers still need plenty of assistance.

The Awards, together with the Evian Special Prize and the Recognitions of Excellence were presented to the winners during the opening ceremony of the Conference of the 132 Ramsar member countries on 18 November 2002, in Valencia, Spain.

A full copy of Max's achievements and some images, see http://www.ramsar.org/key_awards2002_interview_finlayson.htm

Congratulations!!!!

Our warmest congratulations are extended to the following members who joined ASL 30 or more years ago. We thank them sincerely for their contribution and support over this time.

1962
Ian Bayly, Flinders Island Tas
James Wharton, Lennox Heads Qld

1963
Sam Lake, Monash University, Clayton Vic
David Pollard, Fisheries Research Institute NSW

1964
Derek Cannon, Phyto-ID Richmond Vic
Don Edward, University of Western Australia Crawley WA
Brian Timms, University of Newcastle Callaghan NSW

1965
Vida Stout, University of Canberbury NZ

1968
Ann Chapman, University of Waikato NZ

1969
Tim Berra, Ohio State University USA
John Dean, Kew Vic

1970
Joan Powling, University of Melbourne Vic
Roy Swain, University of Tasmania Hobart Tas

1971
Rod Buckney, University of Technology Sydney NSW

1972
Bruce Chessman, Land & Water Conservation NSW
Terry Hillman, Albury NSW
Peter Rogan, Greensborough Vic
Ian Smalls, Castle Hill NSW

1973
Angela Arthington, Griffith University Nathan Qld
Barry Hart, Monash University Clayton Vic
Ian Campbell, Mekong River Commission Phnom Penh Cambodia
John Merrick, Macquarie University North Ryde NSW
Kath Bowmer, CSIRO Wagga Wagga NSW
Richard Marchant, Museum of Victoria Melbourne Vic
Roger Croome, La Trobe University Wodonga Vic
Stuart McCallum, Geelong College Vic

Supplied by Margaret Hart, Treasurer/Membership Officer

Congratulations to Gene Likens

Dr. Gene E. Likens, a member of ASL, was 1 of 15 scientists named by President Bush to receive the 2001 National Medal of Science, the nation's highest award for lifetime achievement in fields of scientific research. The honorees received their medals at a White House ceremony on 12 June 2002. "Each one of these individuals has helped advance our country's place as a leader in discovery, creativity and technology," the President said. "Their contributions have touched all of our lives and will continue to do so."

Gene Likens receives the Medal of Science from President Bush

Awardees of the 2001 National Medal of Science

Gene E. Likens, Director and President and G. Evelyn Hutchinson Chair in Ecology, Institute of Ecosystem Studies, Millbrook, New York

Likens, with colleagues, was the first to document the link between the increasing acidity of precipitation and fossil fuel combustion in North America, and the long-term consequences of this phenomenon - acid rain. His findings catalyzed a vigorous public policy dialogue, stimulated new scientific studies, and raised awareness of the connections between human activities and the ecosystems upon which humans are dependent. His work and the attention it commanded led to national legislation addressing the effects of acid rain.

Likens' classic long-term ecological studies led to important insights regarding the concept of the critical linkages among an ecosystem, an airshed, a watershed, nutrient cycling, effects of land-use practices, biogeochemical cycles and the role of riparian zones. His approach is now the guiding paradigm in the science of ecology and in the application of this science to finding solutions for global environmental problems, including deforestation, the greenhouse effect, acid rain, and eutrophication.

For more information on Gene's well deserved recognition see http://www.nsf.gov/od/lpa/news/02/pr0240.htm and http://www.nsf.gov/od/lpa/news/02/fsmos01_vitalinfo.htm. For background information on Gene Likens see (http://www.ecostudies.org/people/genelike.html)
Many thanks to Phyllis Likens for submitting the information for this article.

Third Australian Wetland Forum

STOP PRESS!!!!!

Please note that Anne Jensen, Managing Director of Wetland Care Australia, has informed me that the Wetlands Forum has been postponed until mid-May. In the interest of delivering the best possible forum, it will not go ahead on the proposed date (Friday 14 March), due to difficulties in confirming the availability of key speakers.

I have included some information for the interest of members and will circulate new information via the web (and inform those on the ASL list-server) when details become available. ***Thanks, Rhonda***

What does Ramsar mean to your wetland? -- linking local wetlands to the Ramsar international family

A joint initiative of Wetland Care Australia, WWF Australia, Australian Society for Limnology and the Society of Wetland Scientists Australia. The Third Australian Wetland Forum will be held at the Banrock Station Wine and Wetland Centre Holmes Road, Kingston-on-Murray, SA Riverland on **date and time to confirmed.**

Aim of AWF3

To make the Ramsar initiative more effective by relating current information about its implementation and obligations to regional and local levels.

Expected Outputs of AWF3

- Practical immediate feedback from the recent meeting of Ramsar signatories in Spain
- Evaluation of the implications of Ramsar for local implementation
- Recommendations for tools and actions to facilitate transfer of key Ramsar information to target groups.

History of Australian Wetland Forums

THE AUSTRALIAN WETLAND FORUMS ARE A JOINT INITIATIVE OF WETLAND CARE AUSTRALIA, WWF AUSTRALIA, AUSTRALIAN SOCIETY FOR LIMNOLOGY AND THE SOCIETY OF WETLAND SCIENTISTS AUSTRALIA.

The first forum was held in Darwin in July 2000 in conjunction with the annual congress of the Australian Society for Limnology. The second forum was held in Moama NSW in September 2001 in conjunction with the ASL congress. The third forum will be held at Kingston-on-Murray at a date to be circulated.

Original aim of Australian Wetland Forums

To achieve a paradigm shift in the way wetlands are managed in Australia, with the aim of halting or reversing the rate of loss.

Further information, please contact Kylie Goldsack at Wetland Care Australia on (08) 8582 3677 or email kyliegoldsack@wetlandcare.com.au

ASL EXECUTIVE TELECONFERENCE 26 FEBRUARY 2003

Apologies: S. Treadwell and N. Rea.

Present: R. Marchant, S. Josey, P. McEvoy, S. Schreiber, M. McGuire, M. Hart, J. Chambers, F. Bouckaert, R. Sinclair, A. Boulton and I. Growns.

1. SIL fund: A. Boulton outlined three options for how the ASL could proceed with this money: retain the full amount ($35,000) and use it to fund students, as originally proposed; donate some to the Bill Williams Memorial Trust Fund (BWMTF) at the University of Adelaide (which is also to be used to fund students) and manage the residual ourselves; or donate the full amount to the BWMTF. The treasurer, M. Hart, argued that the whole of the fund should be kept within ASL's control and that this control would be lost if it were donated to BWMTF. R. Marchant noted that if both the BWMTF and the ASL independently tried to fund students then neither group might have sufficient capital to make regular grants (from interest received) each year; grants might only be made every two to three years. Thus the money that has been donated to both groups is effectively diluted. He also suggested that co-ordinating the grant activity of both groups could be difficult. On the other hand, if the SIL fund were donated to BWMTF then a bigger amount of capital would accrue and grants could probably be made yearly. It was clear from the ensuing discussion that the crucial question was: how much money had BWMTF accrued apart from the potential SIL donation? The executive felt that if less than $50,000 (the BWMTF target) were accrued in two years then all the money should come to the one ASL fund and be managed by the society; if more was accrued then the BWMTF would manage all the funds. A. Boulton, who is on the BWMTF committee, and R. Marchant will liaise with BWMTF and attempt to resolve this issue. It was emphasised by the executive that regular support for students is the essential criterion for how the funds should be managed.

2. Corporate membership: P. McEvoy enquired whether such a category existed. It does and is termed sustaining membership. Such a member has the right to nominate two people both of whom have all the benefits of an ordinary member. Currently the fee for such membership is $50. M. Hart indicated that this will have to be increased (probably to $100) to bring it into line with the current schedule of charges.

3. ASL congress in 2004: P. McEvoy relayed an offer from the River Murray Catchment Board in South Australia to sponsor an ASL congress in December 2004. Kerri Muller has volunteered to organise this congress somewhere in southern SA.

4. Other news from SA: about 15 ASL members had a meeting before Christmas 2002.

5. Finance: M. Hart reported that the books had been finalised up to the end of 2002. Expenses exceeded income by about $3000. She noted that profit made by the annual conference often eliminated such a deficit and that conference organisers should plan to make a profit of about this magnitude.

6. Membership: P. McEvoy suggested that targets for new members should be set. Since the revamped ASL brochures were distributed last year the society has gained about 45 new members, but lost about 50. The pub nights held in various states are an obvious avenue for new members. It was suggested that new members be listed in the newsletter and that those who have been members for 30 - 40 years be asked to write something for the newsletter. M. Hart will collate these lists.

7. FASTS report: F. Bouckaert, on behalf of the ASL, recently attended a FASTS workshop about how to manage a scientific society efficiently. Some of the suggestions that came from this workshop:

(a) employ a secretary. J. Chambers (immediate past president of ASL) applied last year to a federal government scheme for funds to employ a part time secretary. Unfortunately this application was not funded.
(b) increase membership benefits by publishing an electronic journal. This may not be possible for a small society such as the ASL, particularly as the former ASL Bulletin (a printed journal) was abandoned because of lack of a sufficient flow of papers. A. Boulton, who is on the editorial board of the CSIRO journal Marine and Freshwater Research, informed the executive that CSIRO had forgotten in recent years to offer ASL members a reduced subscription to this journal. This reduction will apparently be reinstated. A. Boulton has asked the editor to consider devoting a full issue to a freshwater topic.
(c) contact a society that has moved to a paid secretariat. F. Bouckaert will follow this up. It was clear that a detailed job description will be needed for such a move.
(d) develop a strategic plan. J. Chambers will circulate to the executive what the ASL already has developed along these lines.
(e) issue occasional papers in collaboration with FASTS. One of ASL's forthcoming policy statements could be used for this purpose. S. Schreiber will follow up the status of the paper on salinity policy with B. Kefford who volunterred to write the initial draft.

F. Bouckaert also noted that MDBC might provide sponsorship to an ASL congress. He will contact Belinda Robson (organiser of the joint ASL- NZLS congress in Dec 2003) about this.

8. 14th Wetland conference: J. Chambers will attend this forthcoming conference and produce a report for the newsletter.

INVITATION TO JOINT CONGRESS

You're all invited to the Joint Congress of the Australian Society for Limnology and The New Zealand Limnological Society, to be held at the Warrnambool campus of Deakin University, from 1 to 5 December 2003. The 1st December will be registration and refreshments only with Sessions commencing on the 2nd December.

The joint Congress is preceeded by the Bill Williams Memorial Symposium and Field Trip, which will travel from Adelaide to Warrnambool (see http://www.asl.org.au/ for more information).

There will also be a memorial to Bill Williams during the Congress. Accommodation will be available in the student residences, and within Warrnambool. As this is a joint Congress we have not chosen any specific themes, to allow a diversity of papers from both sides of the Tasman.

Cheers,

Belinda Robson [brobson@deakin.edu.au]

Murray-Darling Basin Commission Media Release, 5 March 2003

The National Carp Control Workshop began at Canberra's CSIRO Discovery Centre today in order to progress the work on the recently announced $3 million "Daughterless Carp" project.

Aimed at dramatically reducing carp numbers in Australian water ways, the three-day event will further detail how the "Daughterless Carp" technology will be applied and when.

The project forms part of the Murray-Darling Basin Commission (MDBC) funded 50-year Draft Native Fish Strategy, but will be jointly administered by MDBC, CSIRO and the Pest Animal Control Co-operative Research Centre (PAC CRC).

The "Daughterless Carp" technology was developed under a four-year CSIRO study that blocked genes critical for sexual differentiation in developing carp.

With fewer and fewer females in the population it is predicted that this technology will sharply reduce the carp numbers in the Murray-Darling Basin within 20-30 years of release.

MDBC Chief Executive, Don Blackmore, said the 50-plus workshop participants and various other organizations and individuals would continue to refine the use of "Daughterless Carp" technology in a long-term solution to the nations' massive carp problem.

Mr Blackmore said work would continue on the proposed technology for a further four-years to fully assess its potential while ensuring the community input is provided on this important initiative.

In nearly forty-years the pest has spread to 90 per cent of the fish population in parts of the Murray-Darling, with some recent surveys finding densities of one carp per square metre of the water surface.

For further background information on "Daughterless Carp" see www.mdbc.gov.au/whatson/carpinfo.htm

SCUTTLEBUTT, RUMOUR AND A BIT OF PRATTLE

CENTRE FOR CATCHMENT AND IN-STREAM RESEARCH, GRIFFITH UNIVERSITY, BRISBANE

Congratulations to **Fiona Balcombe** on handing in her PhD entitled: "Habitat and hydrological variability in sub-tropical streams in south-east Queensland." **Wade Hadwen** has begun his post doctoral fieldwork in northern NSW investigating the effects of recreational fishing, nutrient inputs (including those from sewage treatment plants) and artificial opening and closing regimes on the ecological structure and functioning of ICOLLs (Intermittently Closed and Open Lakes and Lagoons).

Maria Barrett has left us for the classroom. **Maria** has been our long serving administrative officer, who kept all our finances in check since the inception of CCISR. Maria has commenced primary teaching duties at a number of schools in the area. We wish her all the best.

The **EHMP** team (formerly DIBM3) is putting together an interim report of the results from their spring sampling of 109 stream sites in south-east Queensland. The team measured a number of aspects of "environmental health" including ecosystem processes, invertebrate and fish abundance and nutrient levels. Following the recent rains in February they are busily preparing for the next round of sampling in April (they now actually have something to sample).

The **Dryland River Refugium** team will be also busy on upcoming fieldwork with return trips to the Border Rivers, Cooper Ck and Warrego River catchments.

From

Stephen (Harry) Balcombe

Department of Land and Water Conservation
Sydney/South Coast Region, Resource Analysis Unit

Andrew Brooks, Tim Haeusler, Ivars Reinfelds and **Simon Williams** have been undertaking an investigation of the relationship between microhabitats, hydraulics and macroinvertebrate communities in the Kangaroo River and have recently submitted a paper on wetted perimeter modelling to River Research and Applications. They were assisted by a student from Deakin University **Trevor March** during November and December. The focus of the project is to develop local water sharing plans. **Dayle Green** has been involved in the hydrological modelling of the Kangaroo River, including an analysis of homogeneity.

Andrew is developing another project with **Tim Walter** (a UTS student) looking at the implications of dying substrates and re-colonisation of macroinvertebrate assemblages.

Teresa Rose and **Robyn Bevitt** are completing a summary report using selected data from the first two years of sampling, and other investigations on the Snowy River Benchmarking and Environmental Flow Response project. All of the pre-environmental flow release data for geomorphology, vegetation, macroinvertebrates and fish have been collected and processing of samples and data analysis is ongoing. In particular **Mathew Russell** is ploughing through the invertebrate samples. Recent geomorphological assessment of the Snowy River has been postponed due to wild bushfires in the study area.

Helen Keenan has been involved in monitoring the status of the Coxs River following environmental water releases for Lake Lyall. **Simon Morton** has been developing a hydrological model of the Bega-Bemboka River catchment as part of the development of investigations in that system. Along with the modelling, Tim and Ivars are using infra-red imagery to assess changes in wetted area within the river, and Andrew and **Stella Bennett** are assessing pool stratification in refuge pools.

In January, staff provided presentations on our environmental flow programs to the Independent Expert Panel (IEP) for the Hawkesbury-Nepean River Management Forum.

Rob Mann, Adam Boey, Kate Wilson, Shelley Baldwin and **Karen Oakman** have been busy with the Hawkesbury-Nepean Integrated Water Monitoring framework (IWMF). The IWMF is a program initiated in 1998 by DLWC, the then Hawkesbury-Nepean Catchment Management Trust and the NSW EPA. The primary aim of the IWMF is ensure collaboration and information sharing in water monitoring activities across the Hawkesbury-Nepean River catchment. Information collected will provide for catchment-wide assessment against environmental health objectives and inform stakeholders of water management activities.

Kate is heavily involved in the Recreational Water Assessment and Management Program, where sampling is conducted over summer at 10 key recreational sites in the Hawkesbury Nepean River.

Adam is further developing the Hawkesbury-Nepean Integrated Data Management System (IDMS). The IDMS is to be an open and automated system for the collation and distribution of water monitoring data for further analysis. This system will enable efficiencies in monitoring and will create a common knowledge base for the preparation of natural resource management plans and State of the Environment reports.

From
Simon Williams
Resource Analysis Manager, Sydney South Coast Region

SGS Environmental Services – Gippsland Biology Unit

Due to the current weather conditions, the Biology Unit has been pretty busy these past couple of months. The warm weather and pretty much drought conditions have been providing our friends the Cyanobacteria with perfect growth conditions. We have pretty much seen all the major genera, and some samples have virtually provided identification master classes, with the range species and quality of cells present. While we have been having fun on our microscopes, discovering every other day some fantastic colonial, filamentous and unicellular specimens, our clients have not been so happy. Looks like we still have a couple of long months to go.

Jo Csik has completed his primary training on BGA and other Microalgae, and he is now in a position to handle some serious microscopic analyses. Jo has picked the mother of all summers to broaden his skills beyond the microbiology laboratory, but at least he has had plenty to see, and it probably makes a nice change from serotyping Legionella isolates.

Stephan Gabas has had the opportunity to indulge his passion for fish by being appointed to the Inland Waters Committee of the Victorian Fisheries Co-Management Council, as one of their fish and fisheries scientific experts. Congratulations to **Stephan** on his appointment. Now, if can only work out a way of getting rid of the carp from our inland rivers.....

In between samples, and dreams of fish, the waders are being cleaned and the nets mended in preparation for some Autumn stream monitoring projects. Hopefully, there will still be some water left in the streams by then to sample.

In the meantime, **David Sheehan** is trying to clear his desk (a monumental task this) to make way for piles of cooling tower risk management plans (RMPs). **David** is close to being appointed a DHS-certified auditor for RMPs, which, when the process is finalised, will keep him well out of trouble for the forseeable future (even if it won't help his tidy office policy). **Ann Munro** continues to quietly keep the microbiology laboratory ticking over.

From

Stephan Gabas [Stephan_Gabas@sgs.com]

SOUTH AUSTRALIA

An ASL social gathering was held in Adelaide during the week before Christmas and, despite the inevitable conflicts with other events, 16 bods attended. Six of those were not members, and the opportunity to circulate brochures and distribute some ASL promotional posters was capitalised upon. We had a great time.

World Wetlands Day was marked with the launch of the State Wetlands Strategy beside a wetland adjoining the River Torrens. Full marks to the organisers for their foresight in arranging a mobile van that provided real coffee, pastries and orange juice to brighten a Sunday morning.

The recent downpours in the north of the State has directly influenced some limnologists – with workers on the ARIDFLO project in the Lake Eyre Basin becoming stranded by high water levels in our outback streams.

Possibly the most significant news for ages is the dispersal of **Pedro Schultz**, who on February 3 moved from SA Water to assume a new Water for the Environment Officer position at the Torrens and Patawalonga Catchment Boards. His absence will be notable in so many ways, but we expect to continue to interact with him regularly.

AUSTRALIAN WATER QUALITY CENTRE, BOLIVAR SOUTH AUSTRALIA AQUATIC ECOLOGY & BIOMONITORING SUB-UNIT

Chironomid emergence from the Bolivar WWTP stabilisation lagoons has been causing a nuisance for surrounding residents. Treatment of the lagoons with the insect growth regulator methoprene was not particularly successful and some effort is now being spent by **Chris Madden** on tracking adult movements. Introduction of native fish as part of a long-term biological control method is now imminent, and will involve **Darren Hicks** and Chris.

Processing of samples from the SRA Pilot study on the lower Murray is complete and analysis using the South Australian Ausrivas models showed that many sites were "outside the experience of the model", especially from the spring season. This is not surprising to us as we realise that there are not too many "reference" or even "least possible impact" sites in the SA section of the Murray. The next step is up to the MDBC, but if macroinvertebrate Ausrivas is to be used as a measure of river health in the future Sustainable Rivers Audit it may require the construction of a regional model for the lower Murray-Darling.

Monitoring of Wastewater discharge effects and acid mine waste impacts are keeping **Vlad Tsymbal, Tracy Corbin** and **Darren** occupied. We recently hosted **Sonia Barter** (3rd year, Uni. of Adelaide) for a 6 week stint of work experience. Various Catchment Water Management Boards are investigating the Environmental Water Requirements of streams in both the eastern and western drainages of the southern Mt Lofty Ranges. Projects on these streams are likely to keep **Paul McEvoy, Darren** and many others rather busy this year.

Several of us look forward to the thrills of the footy tipping competition (with competitors that have a number of connections to the centre) and to seeing whether **Pedro** can be the overall winner once again! We will keep you posted.

From
Paul McEvoy and Chris Madden

Australian Water Quality Centre, Bolivar South Australia Biology Research and Operations Sub-Unit

Thanks to the warm SA summer, this time of the year sees the AWQC Biology Operations Group working in overload. There are plenty of algal samples being churned through by **Dean Newman, Chris Blake** and **Lyudmila Tsymbal** who have been joined by **Joan Durkin** to help out over the summer. **Peter Baker** continues to monitor the River Torrens and field many inquires about blue green algae from around the country.

Tim Kildea has joined the Biology research group, as the marine biologist. Tim is a macro-algal specialists (but us phytoplankton people will work on him) who is finishing his PhD on macro-algal community and productivity studies. He will be focussing his efforts over the next few months on the Adelaide coastal waters.

Fiona Harvey has begun work on a project looking at the effect of the drought on the lower River Murray and Lakes system. Fiona is working on the water quality section of the project which will continue as the river and lower lakes continue to be drawn down. This section of the project is part of a wider program looking at effects of the current drought on birds, fish, vegetation and invertebrates. She is being ably assisted by **Caroline Fazekas** who has very kindly taken on the tasks of falling into the river, among other things.

Peter Hobson has begun a study into the dosing of reservoirs with copper sulphate. He will be looking into the dosing rates used in reservoirs in SA and also into novel ways of controlling cyanobacteria.

From

Fiona Harvey

Centre for Water Research, Department of Environmental Engineering, University of Western Australia

For CWR news visit www.cwr.uwa.edu.au and click on "Splashback"

From

Richard Segal

ROYAL BOTANIC GARDENS, SYDNEY

Tim Entwisle has discovered an hour early in the morning (I think it's called sleep time) when he can measure his *Batrachospermum* collections for morphometric characters. Armed with an rbcL phylogeny produced by his North American colleague **Morgan Vis**, Tim hopes to tease apart a particularly irritating taxonomic complex by the end of the year. Morgan and Tim will also collect *Batrachospermum*, and some other freshwater red algae, from Tasmania and New Zealand later in the year in an attempt to build up further evidence for their distinctive Gondwanic clade. While Tim attends meetings and all those other things he's meant to do during waking hours, his friends and colleagues do more algal work. **Nick Yee** is working on an interactive key to the genera of freshwater algae in New South Wales (= Australia). This INTKEY extravaganza will include colour pics and lots of easy to understand terminology - it'll be ready by July this year. Somewhere in western Sydney (UWS), **Jenny Nelson**, is still tracking changes in the microalgal communities of Sydney ponds and lakes since 1905 as part of her part-time MSc (Hons). Way up north (UNE), **Imogen Edmunds** is studying algal sequestering of heavy metals (but this will be reported elsewhere).

Steve Skinner continues to wrestle with the many manifestations of the genus *Oedogonium*. There should be a series of papers on its taxonomy in the next couple of years. Then we can get down to the task of finding out how important the riverine species are - when we can put them into the most probable sections of the genus. Prof. Mrozinska in Poland came up with the sections idea and it should help when we have some idea of what we have in Australian waters. Other papers include the larger Chaetophorales (in press) and the Cladophorales should be a great help to people who work on our rivers and creeks. Besides all that, Steve and Tim have joined forces with **David Eldridge** from UNSW to look at providing methods for including algae and other cryptogams regularly in vegetation surveys.

Joanne Ling has now decided that trying to collect aquatic macroinvertebrates and wetland plants in wetlands for a PhD was a silly thing to do in a drought! She is currently finishing the identifications of plants and animals for the fourth season's collection and will hopefully have developed some wetland indices for macroinvertebrates and wetland plants by the end of the year!

Lucy Nairn has continued work on her PhD looking at the ecology of freshwater macroalgae in the Southern Highlands region of NSW. She hopes to finish at the end of September, however, like most people working on things aquatic has been hampered by the lack of aqua in the systems. The recent rains have solved that problem for the time being, although they did cause a spate that sent all her experiments hurtling towards Carrington Falls - a drop of some 50 metres. Needless to say she's very relieved that no abseiling was required to recover them.

From

Joanne E. Ling

UNIVERSITY OF NEW ENGLAND, ECOSYSTEM MANAGEMENT

A new academic year dawns and the pitter-patter of enthusiastic new students... OK, OK, some new PhD students have started this year as part of a group of postgraduates tackling an integrative research project assessing the responses to wood introduction and riparian replanting of an 8-km stretch of the Hunter River. **Bob Breese** has joined us from Melbourne to work on the effects of snag reintroduction on organic matter processing while **Sarah Mika** has put a promising career in estuarine meiofauna on hold while she examines corresponding changes in subsurface flow paths, water quality and macroinvertebrates. Currently we are hunting for a fishy postgraduate to be supervised by **Brad Pusey** to complete the trophic web - any one out there? The other two postgraduate students at Macquarie University will be exploring fluvial geomorphological changes and riparian zone weed dynamics supervised by **Gary Brierley, Andrew Brooks** and **Michelle Leishmann**.

As well as supervising Bob, **Darren Ryder** is developing a research proposal with **Stuart Blanch** and a cast of thousands to obtain postdoctoral support for a GIS-based ecological modeler under the auspices of a new research centre North Coast Aquatic Linkages or NCAL that aims to coordinate aquatic, estuarine, and marine research on the North Coast of NSW from the Clarence to the Hunter. Darren, **Adrienne Burns** and some folk from CSIRO have also recently begun a Land and Water Australia funded project examining the effects of diffuse sources of nutrients on ecosystem production in the Murrumbidgee River.

Another new arrival is **Peter Rose** who plans to do his Honours on post-drought recovery by macroinvertebrates in the Nambucca and Bellinger Rivers in areas of different land-use. However, if these rains do not persist, Peter's project will continue examining the responses of said macroinvertebrates to drought - we await Huey's pleasure. **Simon ('Rex') Carter** also joins the Aquatic Lab to do his Honours studying the effects on the fish assemblages in *Vallisneria* and *Myriophyllum* beds resulting from intrusion of saline estuarine water up the Hastings River following the low drought flows. This continues from **Kelly Howitt's** work that revealed how far the saltwater penetrated and the devastating impact on water plants and 'burnt' riparian zone vegetation. These two projects, funded by the Hastings Council, are co-supervised by **Keith Bishop**. The final new face on the block is **Judy Davies** who is investigating leaf transport, pack formation, and the fauna of leaf packs of the exotic Camphor Laurel. She is very keen to hear from other people working on this species.

Andrew Boulton recently spent a few days admiring the complex levee system within Dowd Morass, Gippsland, that will allow **Paul Bailey** and **Paul Boon** the opportunity to variously flood and dry large sections of the wetland to assess vegetation response to water regime as a tool in wetland rehabilitation. He headed further south to see the sites where **Joanne Clapcott** and **John Gooderham**, co-supervised with **Leon Barmuta** and **Peter Davies**, are exploring ecological and faunal responses to forestry and buffer strips in minute headwater streams that seem to carry an awful lot of water for such tiny channels.

From

Andrew Boulton

THE MURRAY-DARLING FRESHWATER RESEARCH CENTRE

(incorporating news from Albury, Mildura and Goondiwindi)

The Lower Basin Laboratory, in conjunction with the Mallee Catchment Management Authority and the DLWC, organised "Billabong Jazz" - four hours of activities at Kings Billabong to celebrate World Wetlands Day on 2 February.

John Hawking provided specimens, posters and help for the Albury Regional Museum display on *DRAGONFLIES! Explore the wonderful world of the Dragonfly*, displayed from 16 December to 2 March.

Darren Baldwin has obtained funding from the Barmah-Millewa Forum to investigate the dynamics of black-water events with a view to improving our ability to predict black-water events and minimize their impacts.

The 3rd Worldwide Dragonfly Association International Symposium on Odonatology was held at La Trobe University (Beechworth) from 8 - 13 January. 100 delegates from 14 countries attended (first time the symposium had been held in the Southern Hemisphere), and 60 papers were presented Following the Symposium, a number of scientists spent time with **John Hawking** (the convener of the Symposium) collecting specimens across the region and preparation of manuscripts.

Meetings have been held between the MDFRC Albury and Mildura staff, local Rotary Clubs, to facilitate the annual Easter Camps. These camps provide a high quality experience for high school students interested in science, the environment and aquatic ecology. The camp dates are 10th to 13th April at Lake Cullulleraine (near Mildura) and 13th to 17th April for the 8th Rotary Murray-Darling School of Freshwater Research at Albury.

Chester Merrick will be leaving to take up a position with NSW DLWC as the Murray Region's aquatic ecologist. We wish him all the very best in his new position.

Lynn Smith has started work at Albury, and will be working with **John Hawking** and **Kathie Le Busque** on macroinvertebrate identification, and image analysis for an MDBC consultancy.

Amina Price has begun her PhD based at MDFRC (Albury) under the supervision of **Paul Humphries** and **Martin Thoms** (Uni. of Canberra). She will work on floodplain habitats used by native fish around the Ovens River.

Nicole McCasker, an ex-summer student of the Lower Basin Laboratory, has returned after completing her honours at Monash University. She will be working on the fish larvae project and using her macroinvertebrate skills on a variety of projects and consultancies.

The Research Fellow and Community Scientist positions (Griffith University) will be advertised in the first week in March, along with a Research Assistant position for the Narran Lakes project (University of Canberra).

The Northern Laboratory is planning on moving and renting commercial premises from mid-April in Goondiwindi's main street. Negotiations are under way with the owner regarding lease conditions, and a core operational budget is being finalised.

MURRAY- DARLING BASIN COMMISSION

Sustainable Rivers Audit

The Pilot project for the Sustainable Rivers Audit (SRA) is now in full swing, with all the fish data for the four River Valleys (Condamine-Balonne, Lachlan, Ovens and Lower Murray) trialled during the Pilot being received from all States. **Wayne Robinson** has been very busy weeding out errors and undertaking the preliminary analysis. These quantitative estimates will assist in setting targets for the Commission's Native Fish Strategy, which was released recently for public comment.

Frederick Bouckaert and **Leanne Wilkinson** have joined the SRA team to assist with the ever increasing workload. **Frederick** has been busy working on conceptual models for water processes reference conditions and is assisting **Jody Swirepik** with coordination of all themes and stakeholders involved. **Leanne** is delving into the intricacies of habitat assessments and hydrology, and assisting the team with her GIS skills for site stratification and pilot reporting. Now that the process of setting reference conditions for all indicators are nearing completion, data analysis and report writing will eclipse the next few months. A series of reports will culminate in the recommendation of a long-term SRA program to the Ministerial Council in October. For more information on the objectives of the SRA see the website www.mdbc.gov.au

Some unexpected observations have been recorded from the Autumn pilot sampling in the Lachlan catchment. Several samples were found to contain abundant larvae of the elusive crepuscular (i.e. flies only in low light - dusk, maybe dawn) species of dragonfly *Apocordulia macrops*. Previously adults were reared from larvae but no adults had been caught from the wild. A subsequent field trip at dusk finally yielded the first and successfully live collected adult of the species. It will be used to properly describe the adult form and then lodged with a museum. In the Condamine, a first capture in the Basin was confirmed of Rendahl's catfish (*Porochilus rendahlii*).

From

Frederick Bouckaert

POSTCARD FROM TIM DOEG

THERE'S A RUDE IN EVERY CROWD

Workshops! I love workshops. Usually, there is a bunch of people sitting around talking about important issues, exploring new ideas, often at the cutting edge of projects. They can be a very stimulating environment. Sometimes, they even come up with good ideas, which is a bonus. Also, it's a chance for the lone consultant to get out of the office (home) and actually see some human faces once in a while. One of the worst things about being a solo consultant is the isolation from fellow human beings. Often, there are days on end spent sitting at a computer, typing up some final report or analysing some data. During this time, there's only the dog to talk to - and when the dog starts answering back, it's time for a rest. But when the dog's answers start to make sense, it's time for a workshop.

But the last three workshops I have been to have been rather sad affairs - due to the presence of some Really Uncalled-for Distracting Element (the RUDE). You can always tell a potential RUDE at a workshop. Invariably, they have their own laptop computer and they don't tend to have bits of paper and pens to write with. Now, I know that some people like to take notes at workshops directly into their computer - having completely lost the ability to write longhand. But the appearance of a laptop without blank bits of paper is the first scary sign of a RUDE. The RUDE is not at the workshop to contribute. The RUDE is there for a completely different reason.

At a recent workshop, I was distracted by the RUDE sitting in the row in front of me playing with a spreadsheet on the laptop. Sure, the RUDE was good at spreadsheets - cutting and pasting here and there at great speed, copying formulae from one part of the spreadsheet to another. There were a few things that went on in that spreadsheet that I would have liked to know how it was done. But, the workshop was not about spreadsheet design or operation. It was a completely different subject, and the distraction of the spreadsheet RUDE, meant I missed some of the important bits that were going on.

At another workshop, the RUDE sat up the back, but typed at a rapid rate all through the workshop. This could not be notes from the workshop, because even in the quiet bits, the typing went on ... and on ... and on. Unfortunately, it was one of those laptops with a noisy keyboard, so the entire time was punctuated by this frenzied distracting "tap, tap, tap, tap". Taking a glance at the laptop screen during a coffee break, all I could see were the words "MEMO: TO ALL STAFF Re: Budget".

The final workshop was to demonstrate and refine some new software package. In the workshop, the computer output from the software was projected onto a screen, so that every-one could see how it works. The RUDE was located off to one side, playing with a laptop. At one point, when we were trying to work out what some output meant, there was a loud "Aha!" from the RUDE. Expecting some deep insight, we all looked at him (sorry guys, the RUDE seems almost always to be a male). But he just kept playing. As we got back into the projected output, there was a sudden "Oh!" Again, we got distracted, but no insight or explanation was forthcoming. Soon after, as some complicated statistical output of the software was projected, came the plaintiff cry - "But mine doesn't do that." The RUDE was playing with his own version of the software (an older version as it turned out) and was clearly not following the flow of the workshop, just going of on his own tangent.
If you go to a workshop, please go to contribute. There are often people there who are interested in the subject and the output. If you must do other work, find another room to do it in. If for some reason, you have to be there: Sit up the back; Get a quiet keyboard; and Shut up.

4TH INTERNATIONAL SYMPOSIUM ON PHOSPHATE IN SEDIMENTS

9th - 12th September 2003, Carmona (Sevilla, Spain)

The *Asociación Española de Limnología*, the University of Sevilla, together with the University of Granada, will organise the FOURTH INTERNATIONAL SYMPOSIUM ON PHOSPHATE IN SEDIMENTS.

Sediments are known as important sites for aquatic nutrient recycling, but not all processes are as yet fully understood, neither q ualitatively, nor quantitatively. The next meeting on this subject, in which the state of the art and future developments will be discussed, is highly due. This meeting will be take place in Carmona (Sevilla, Spain) from 9th to 12th September 2003.

Oral presentations and posters will be included under the following topics:

1. Vertical and horizontal transport
2. Chemical methodology (fractionation)
3. Bioavailability and essays
4. Changes due to seasonal drying
5. Release and fluxes
6. Marine sediments
7. Links between the P-cycle and that of other elements
8. Management and restoration
9. Miscellaneous topics

Abstracts should be send to serrano@us.es before 1st June, and will appear on the Symposium web page.

Visit the website of the Spanish Limnological Association for updated information on this meeting: www.aelimno.org

INFORMATION FROM AND FOR MEMBERS

2003 Banksia Environmental Awards Now Open

Nominations are now open for Australia's most prestigious environmental awards. Large corporations, small businesses, community groups, government organisations and individuals pursuing and practicing environmental excellence are encouraged to enter. Two new categories are being launched this year - 1) Environmental Leadership in the Rural Sector, 2) Leadership in Sustainability in the Minerals Industry.

Other categories range from 'Leadership in Socially Responsible Investment' to 'Environmental Leadership in Communications'. Closing date for entries to all awards is 5pm, March 28, 2003. Entry forms, categories and criteria can be downloaded from www.banksiafdn.com or contact Amanda Prosser, SparkPR on 03 9427 9889.

Call for Nominations for 2003 Science Prizes - Closing Date Wed 26th March 2003

These are for:

- Prime Minister's Prize For Science
- Science Minister's Prize For Life Scientist Of The Year
- Malcolm McIntosh Prize For Physical Scientist Of The Year
- Prime Minister's Prize For Excellence In Science Teaching In Primary Schools
- Prime Minister's Prize For Excellence In Science Teaching In Secondary Schools

Further information on Conditions of Awards and Nomination Requirements available from:

Science Prizes Secretariat, Dept Education, Science & Training, GPO Box 9880 CANBERRA ACT 2601, Phone (02) 6240 5066; Email: pmprize@dest.gov.au or see https://sciencegrants.dest.gov.au/scienceprize

To obtain a copy of the Land and Water Australia Project GMW 6 report "Nutrient Removal from Rural Drainage Systems using Wetlands" contact Daryl Eaton, Goulburn-Murray Water, on phone (03) 5833 5628 or daryle@g-mwater.com.au

Water - Learning and Living and Catchment Care

Available on the South Australian WaterCare website -www.watercare.net/

Haloniscus

Haloniscus (Oniscidea) occurs, reportedly as a single species, in saltlakes across southern Australia from Tasmania to Rottnest Island. There is also an anchialine species from New Caledonia and we have numerous stygal species. A group from the Western Australian and South Australian Museums and CNR, Firenze, have started morphological and molecular work to examine the evolution of the stygal species and want to include a range of epigean populations from the saltlakes across southern Australia.

If anyone has access to, or comes across, Haloniscus from surface (or any) habitat, we would be delighted to receive a few specimens, preferably preserved in 100% ethanol (but 75% may suffice) for molecular work.

Material would be useful anytime in the next year. Due and profuse acknowledgement will be forthcoming. Further information from Bill Humphreys: humphw@museum.wa.gov.au

Hydrologic Impacts of Bushfires Website Now On-Line

In response to many requests for information about the hydrologic impacts of the recent bushfires in Victoria, New South Wales and the ACT, the CRC for Catchment Hydrology has established a website to deliver information that may be useful to catchment and water supply managers. The site is a modest resource at this point and will evolve as more contributions are received.

The site initially features a FAQ section designed for land and water managers, an overview of the hydrologic impacts of fire, a news page for information about related activities and reference lists. The site is now on-line at http://www.catchment.crc.org.au/bushfires

The site is the result of work by a wide range of internal and external CRC staff and has benefited from significant industry input particularly in posing relevant questions. Whilst the site has been initiated by our CRC we would like to encourage other organisations to contribute to it. Naturally, we will gratefully acknowledge such contributions. If you can contribute to the site or wish to make a comment please contact david.perry@eng.monash.edu.au

In Search Of Sustainability (ISOS)

Call for papers and registration

An innovative internet conference will be held over nine months from February to October in 2003. It will provide an electronic venue for the exchange ideas on issues that will affect the long-term sustainability of Australia.

A different theme will be addressed each month. These are:
February: Water;
March: Human Health and Well-being;
April: Land use and natural ecosystems;
May: Energy;
June: Equity and Peace;
July: Economic systems;
August: Climate;
September: Labour Force and Work;
October: Transportation and Urban Design.

One keynote paper for each theme will be posted on the web-site and then a further nine papers at the beginning of each month. Registrants will have access to all papers and the opportunity to post two comments a month. In November, a face-to-face conference will be held in Canberra to review the material covered. Papers are hereby invited. They must be 1500 words, accompanied by a 150 word summary, and not include more than ten references.

Further information: http://www.isosconference.org.au.

Managing the Cumulative Effects of Water Infrastructure

By Jon Nevill (OnlyOnePlanet; 0418 550 265)

This article is a shortened version of a longer paper available at www.onlyoneplanet.com.au. Comments are welcome.

The difficulty and importance of managing the cumulative effects of the incremental development of water infrastructure has been seriously underestimated. Most recent Australian water resource legislation, with the exception of the *NSW Water Management Act 2000*, ignores the issue almost completely (for further details see the discussion of State water legislation in Nevill 2001 and Maher et.al. 2002).

The only effective way to manage cumulative effects is to establish strategic caps (or limits) on water developments (dams, weirs, water abstraction from surface and groundwaters, drains, and levee banks) *well ahead of developments reaching the level of the cap* (in other words, well ahead of the catchment entering a stressed condition). Caps should not be limited to water use and infrastructure, but should extend to all activities with the potential to affect the water resource: vegetation clearance, in-stream disturbance, and the management of wetland and riparian vegetation. In managing riparian and wetland vegetation, the concept of 'no net loss' may prove useful. Moreover, such caps should be set in a precautionary way.

Within a democratic government framework committed to transparency and accountability, the only tool capable of controlling cumulative effects is strategic natural resource management within catchment boundaries – in other words: integrated catchment management (ICM). As a matter of urgency, ICM programs must be expanded to set such development limits, taking account of a full range of catchment values, including biodiversity. Moreover, steps must be taken to ensure such catchment plans integrate the management of surface and groundwaters and incorporate quality assurance (adaptive management) principles regarding the auditing and enforcement of implementation programs.

Coffey (2001) has examined the extent to which Queensland's determination of environmental flow regimes meets the object of sustainability of Queensland's *Water Act 2000*. Her important finding is that, in practice, environmental flow regimes are *not* being set in a precautionary way - contravening a fundamental element of sustainable decision-making. It seems highly likely that a careful examination of mechanisms used in other States to set environmental flows would reveal similar gaps between the high ground of policy rhetoric and statutory objectives, and the reality of day-to-day decision-making. Justice Stein's paper (Stein 1999) adds support to these concerns.

Studies such as Coffey's and Stein's add weight to calls for management *procedures* (as well as *results*) to be audited against sustainability objectives and principles (Nevill et.al. 2001).

To repeat the key message: cumulative effects will not be effectively controlled unless State governments set in place management processes containing four critical elements:

- the need to establish strategic development caps on a catchment basis must be *formally recognised in water resource legislation*, and appropriate management procedures (with adequate community consultation) must be established to set and implement the caps;
- *caps must be comprehensive*, covering: water extraction from both surface and groundwaters; the construction of farm dams (number and volume), agricultural drains, impediments to fish passage, and levee banks; the development of irrigated pasture; the clearance of deep-rooted vegetation, and activities (eg: stock access) capable of degrading riparian vegetation.

- the caps on development *must be set well ahead of the point where the catchment enters a stressed or crisis situation*; and
- the caps must be set in a *precautionary* way.

The four critical elements must *all* be applied. This is not currently the case in any Australian State. The legislative and policy frameworks of Australian States are discussed in Nevill 2001: Chapter 6. More recently, the frameworks of WA, SA, Victoria and Tasmania are discussed by Maher et.al.(2002).

The adoption of the critical elements is summarised in the table below:

Table 2: Management elements in controlling cumulative effects:

	WA	NT	Qld	NSW	ACT	Vic	Tas	SA
The need to manage cumulative effects in general is explicitly recognised in key statute or policy.	no	no	no	yes	no	no	no	no
Statute or policy has established mechanisms which allow the development of strategic catchment-based caps on development.	yes	yes	yes	yes	yes	yes	yes	yes
Development capping mechanisms are comprehensive (not just water extraction).	no	no	no	no	no	no	no	no
Caps are required to be established well ahead of catchment crisis.	no	no	no	no	yes	no	no	no
Where caps are established, they are required to be set at precautionary levels.	no	no	no	no	no	no	no	no

Note that the information in row 2 relates principally to water extraction and allocation.

It is essential that the provisions which States have established to limit water extraction be expanded to cover the areas listed above (such as farm dams, levee banks, vegetation clearance and agricultural drains). Note also that the information in row four is based on anecdotal information, other than the recent paper by Coffey.

The ICM frameworks established by Victoria, New South Wales and South Australia are foundered on statute, and in my opinion, empowered by this approach. The ACT has a catchment framework established by substantive policy, and Queensland may move towards statutory ICM planning. However Tasmania and the Northern Territory, and to a lesser extent Western Australia, have weak and poorly guided ICM frameworks. Such frameworks, in my opinion, are likely to be almost completely ineffective in managing cumulative effects.

Other key initiatives are necessary to support the management frameworks proposed in this paper. Comprehensive inventories of freshwater ecosystems are necessary (Nevill 2002) to support decision-making (by stakeholders at the catchment level) related to the protection of special freshwater values. We also need to move towards a rural culture which considers catchments and bioregions as fundamental frameworks guiding local decision-making. Hopefully motorists will start seeing creek crossings labelled, not only with their catchment, but with their bioregion as well.

REFERENCES:

ARMCANZ / ANZECC (1996) *National Water Quality Management Strategy: National Principles for the Provision of Water for Ecosystems;* Agriculture and Resource Management Council of Australia, and Australian and New Zealand Environment and Conservation Council, Canberra.

Coffey, Felicity (2001) Assessment of Water Resource Plans under the Water Act 2000 (Queensland) with consideration of ecological outcomes and environmental flow objectives in the context of the precautionary principle and sustainable management, *Environment and Planning Law Journal*, Vol. 18.

Hardin, Garrett (1968) The tragedy of the commons. *Science* 162: 1243-1248. A copy of this paper is available on www.onlyoneplanet.com.au.

Maher, Mary, Nevill J and Nichols P (2002) *Improving the legislative basis for river management in Australia.* Two volume report commissioned by Land and Water Australia (Australian Commonwealth Government); Canberra. 300pp. Available through www.lwa.gov.au, or www.users.bigpond.com/jon.nevill/ .

Nestler, John M; Long, KS (1997) Development of hydrological indices to aid cumulative impact analysis of riverine wetlands. *Regulated Rivers: Research and Management*, (13)317-334.

Nevill, Jon (2001) *Freshwater biodiversity: protecting freshwater ecosystems in the face of infrastructure development.* Water Research Foundation of Australia, Australian National University; Canberra. 130 pp. Available at www.netspace.net.au/~jnevill/freshwater-a.htm.

Nevill, Jon, Nichols Peter, and Maher Mary (2001) *Assessing the sustainability of freshwater programs.* Paper presented to the Third Annual Stream Management Conference; Brisbane, August 2001. MS Word97; 30 pages Available at www.netspace.net.au/~jnevill/freshwater-a.htm.

Nevill, Jon (2002) *Australian inventories of freshwater ecosystems.* Available at www.onlyoneplanet.com.au.

Odum, William (1982) Environmental degradation and the tyranny of small decisions. *Bioscience* 32(9) 728-729. A copy of this paper is available on www.onlyoneplanet.com.au.

Stein, Paul (1999) *Are decision-makers too cautious with the precautionary principle?* Paper presented to the Land and Environment Court of New South Wales Annual Conference, 14-15 October 1999. http://www.attgendept.nsw.gov.au/sc/sc.nsf/pages/Stein_3

Water Groups Call For Water Restraint Measures

Three national water associations - the Irrigation Association of Australia, the Australian Water Association and the Australian National Committee on Irrigation and Drainage - have called for joint action to reduce urban water use by 30% and double the value of agricultural production for each unit of water used, within the next 10 years.

The organisations, which have formed themselves into the Australian Water Industry Forum, claim that the targets can be achieved by adopting practical and realistic measures and has called for government to support the community in both rural and urban areas in making these changes and to create incentives that will encourage smart water use in every activity.

Latest Irrigation Technology To Be On Show

The latest in water use efficiency technology will be presented to delegates at the Irrigation 2003 conference and exhibition to be held at Dubbo, NSW, from May 7 to 8, 2003. Conference speakers will include Visy Industries Chairman Richard Pratt and Murray-Darling Basin Chief Executive Don Blackmore.

Conference sessions will be held on gravity-fed, pressurised and urban irrigation, while all the latest equipment and practices will be demonstrated at the expo, which will feature all the latest products and services. An informal conference dinner is also to be held. Irrigation 2003 is organised by the Irrigation Association of Australia, which was formed in Dubbo 20 years ago. For more information about the conference phone Rodney Cox or Andrea Creer of Exhibition and Trade Fairs on (02) 9290 1234, visit the conference website at http://www.irrigation.org.au, or email andrea@sydney.etf.com.au

New Planning Policy for Acid Sulphate Soils

The Queensland Government has introduced its new State Planning Policy to help plan and manage development on land affected by acid sulphate soils. Acid sulphate soils occur naturally on about 2.3 million hectares of low- lying coastal areas in Queensland, mostly in those areas less than five metres above sea level.

The policy, Planning and Managing Development Involving Acid Sulphate Soils, will apply to 42 coastal local government areas and will help to avoid the potentially negative effects that disturbance of these soils could have on the environment, infrastructure and human health. Sulphate soils can cause corrosion of aluminium, concrete and steel infrastructure, as well as death of both land-based and aquatic vegetation.

City Of Melbourne to Cut Water Usage

Melbourne City Council has released for public comment a draft 20-year strategy to cut water consumption in the city by 15 per cent through a range of innovative measures. The City of Melbourne, Melbourne Water and the International Council for Local Environment Initiatives jointly produced the draft Sustainable Water Management Strategy, which aims to reduce water consumption and improve stormwater quality across the municipality.

If the City of Melbourne continues to use water at its current rate, total demand would nearly double by the year 2020. The draft strategy proposes a range of actions to reduce water consumption including the installation of water-efficient devices and equipment in all council buildings, landscapes and public facilities. It suggests reducing the number of fountains in public and private spaces, using new technology for more efficient irrigation and the introduction of drought-tolerant plants in the city's parks and gardens. For more information or to obtain a copy of the draft strategy phone the City of Melbourne on (03) 9658 9658 or go to www.melbourne.vic.gov.au

Wetlands Discussion Paper

The NSW Government's Compensatory Wetlands Discussion Paper is now available on the DLWC website http://www.dlwc.nsw.gov.au/care/wetlands/cw/index.html. Written comments can be forwarded to: Dr John Duggin, State Wetland Advisory Committee Chair, c/o Dr Kylee Wilson kwilton@dlwc.nsw.gov.au. Please submit comments by Friday 28th March. These will be tabled with the State Wetland Advisory Committee for consideration when the document is revised at a date yet to be determined.

River Styles (Short Course)

Date: 17th-21st March 2003
Venue: Goulburn, NSW
Duration: 9 am - 5 pm, Monday - Friday
Presenters: A. Prof. Gary Brierley, Dr Kirstie Fryirs

River Styles provides a catchment-framed geomorphic summary of river character and behaviour. The explanatory and predictive bases of this catchment-framed approach to the analysis of River Styles provides a rigorous physical basis for river management and rehabilitation decision making. Application forms from Ros Green rgreen@mrl.mq.edu.au, Information on River Styles or course contents, contact Kirstie Fryirs at kfryirs@els.mq.edu.au

Industry Calls for Water Leadership

The Australian Water Association (AWA) and the Stormwater Industry Association (SIA) have both welcomed the Senate Environment Committee's report on urban water management, describing it as "one of the most extensive research studies carried out in the last 10 years into the operations of urban water systems."

The report calls for a national water policy to accelerate the adoption of sustainable water management in Australia.

President of the SIA, Keith Capon, said that industry was heartened by the Committee's recognition that total water management strategies needed to improve and was particularly pleased that stormwater was identified as one of the key sources of urban water which must be re- valued as a resource rather than another waste product.

Government members of the Committee submitted a dissenting report which rejected the recommendation for a National Water Policy and for the proposed National Water Partnership Framework and argued that Australia's water problems had to be tackled at the local level and this was a matter for State and territory and local governments.

ABS Year Book Reveals Environment Statistics

The Australian Bureau of Statistics has launched its 2003 Year Book which this year has a special focus on the environment. The book contains special feature articles on the environment along with a wealth of information about contemporary economic, social and environmental conditions in Australia.

The feature articles address issues, such as climate change and sustainable development, making the 2003 Year Book a handy reference tool for those seeking environmental information. The Year Book, as with all ABS publications, heavily draws upon information provided by individuals, businesses, governments and other organisations. The publication is the 85th edition of the Year Book which was first published in 1908.

More information from the Year Book (cat. No. 1301.0) is available by subject in the 'Australia Now' section of the ABS website www.abs.gov.au

Wetlands Workshops

Date: 06 Mar 2003 - 02 May 2003
Venue: Bicentennial Park

Sydney Olympic Park Authority (SOPA) is presenting two 2-day practical workshops in 2003 on Wetland Restoration and Management. The first Workshop is 6-7 March 2003 and the second Workshop is 1-2 May 2003.

The Identification, Monitoring and Management of Aquatic Macrophytes workshop will provide you with much-needed systematic and practical experience in this most difficult task.

The Toxic Algae Identification and Water Quality Monitoring and Management workshop will assist you in how to collect toxic blue-green algae samples and identify them. You will use water quality testing instruments to analyse data collected.

For further information and Bookings please contact, Parklands Bookings Coordinator on: Ph: (02) 9714 7509 Fax: (02) 9714 7559 or e-mail: wetworkshop@sopa.nsw.gov.au

Greenhouse Review Released

The Australian Greenhouse Office will no longer have responsibility for international greenhouse issues, if recommendations of the Review into its operations, conducted last year, are taken up by the Federal Government.

The Review of the AGO, finally made public eight months after it was submitted to the Government, recommends that the Office continue to be in charge of domestic greenhouse issues, but take a subordinate role in international greenhouse matters to the Department of Foreign Affairs and Trade.

As was reported in Environment Business last year, the Review also recommends scrapping the independent status of the AGO, instead incorporating its functions into the Department of Environment and Heritage, but retaining a distinct identity within the Department. To view the Report go to www.ea.gov.au/about/ago-review.html

Review Highlights Lack of Environmental Flow Studies

Land & Water Australia has completed a review of scientific work on environmental flows around the world which has indicated that a considerable amount of work is being done on modelling environmental flow requirements, but very little evaluation has been done of the effects of actual increases in environmental flows.

Speaking at a hearing in December of the House of Representatives inquiry into future water supplies for Australia's rural industries and committees, the Executive Director of Land & Water Australia, Colin Campbell, said it was 'somewhat depressing' to find that Australia was at the forefront of this sort of work, as there was little knowledge to build on.

"That is the direction we need to go: towards much better methods for evaluating the impacts of water we allocate for the environment and for putting really good numbers on those".

Latest Information on the Living Murray Initiative

A series of fact sheets on current and proposed work being undertaken by within the Living Murray initiative are now available on the MDBC web site at: http://www.mdbc.gov.au/naturalresources/e-flows/eflow_factsheet_menu.htm

In addition to this, a log of issues raised at meetings held to discuss this initiative can also be found at:
http://www.mdbc.gov.au/naturalresources/e-flows/eflow_issuereg.html

Further information on the Living Murray initiative can be provided by contacting the Living Murray initiative information line on 1800 687 044 or email to e-flows@mdbc.gov.au

Macquarie Marshes Website

The Macquarie Marshes Management Committee (MMMC) have a new website which can be visited at http://www.macquariemarshes.com. The site outlines the ongoing effort and commitment by the MMMC to the management and conservation of the Marshes. Other useful information such as relevant research information and the Macquarie Marshes Management Plan is also included on the site.

The MMMC are currently seeking corporate sponsorship for the site to cover further development and general upkeep. If you have any suggestions for potential corporate sponsors for the site I'd be happy to pass them on to the MMMC. Please email me at mwaschka@wwf.org.au.

ABS Publication

The Australian Bureau of Statistics have released a publication titled 'Salinity of Australian Farms 2002' that records results from the Land Management and Salinity Survey conducted in May 2002. Summary results, including a map of the NAP regions are available at http://www.abs.gov.au

Murray-Darling Basin 2051: Setting the Vision Biodiversity Workshop

Proceedings are now available from this workshop which was held in October 2001 by WWF Australia and supported by CSIRO, the Murray-Darling Basin Commission, Environment Australia, Land & Water Australia and the National Land & Water Resources Audit.

The aim of the workshop was to tackle the issue of biodiversity planning, and to identify ways to improve the protection of natural systems and diversity of the Murray-Darling Basin. Participants at the workshop were able to get a better understanding of the current state of biodiversity in the Basin and to discuss options for its health over the next 50 years.

Copies of the proceedings in electronic format (PDF version) and/or in hard copy (limited number available) are available and can be requested by contacting Marie Waschka on (02) 6257 4010 or email mwaschka@wwf.org.au.

New website link for NSW State Wetland Advisory Committee

A new link for the NSW State Wetland Advisory Committee can be found at http://www.dlwc.nsw.gov.au/care/wetlands/swac/index.html.

WANTED

PLATYPUS SIGHTINGS

While the platypus remains widespread and common in some river catchments, the species is known to have declined in others. This is not surprising: as a warm-blooded predator, the platypus requires large amounts of macroinvertebrate prey to survive and reproduce successfully. Studies undertaken in captivity suggest that the animals must consume the equivalent of at least 15% of their body weight in food each day - which adds up to more than 2 kg of aquatic invertebrates per week in the case of a medium-sized (1.5 kg) platypus. Platypus population size may also be reduced by factors unrelated to waterway productivity: the skeletons of 17 platypus were recently recovered from one illegal eel net abandoned along a tributary of the Gellibrand River in coastal Victoria.

Platypus live-trapping survey work is logistically demanding and requires participants to stay awake for much or all of the night. The methods used to capture platypus are also limited with respect to the range of sites where nets can be usefully deployed: fyke nets must be set with the tail end well out of the water so that captured animals don't drown, and unweighted gill nets work best where there is little or no current (and few large fish to get caught and weigh nets down).

As an alternative (and hopefully complementary) approach to defining where platypus occur and where they've disappeared, over the next two years the Australian Platypus Conservancy is asking people to share their knowledge about where they've recently seen the animals. The information is being stored using Arkview 8.2 mapping software and will be utilised both for conservation and research purposes, e.g. to identify small populations which potentially are at risk of extinction, and to investigate how factors such as salinity may be affecting the species' distribution within and across catchments.

The platypus sightings database is being developed as part of a broader program, *Platypus Care*, funded by the Victorian State Government, the Victorian Catchment Management Authorities and Melbourne Water. While the program's primary focus is on the animals occupying Victorian catchments and contiguous portions of the Murray River, sightings made in other parts of the platypus's range are also welcome. Persons wishing to contribute to the database can register sightings on-line by visiting the *Platypus Care* website (www.platypus.asn.au). Over the longer term, the website will also summarise the platypus distributional data in the form of user-friendly maps, designed to be of interest to waterway professionals as well as the broader community.

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FASTS

Science and Technology for the Social, Environmental and Economic Benefit of Australia, 5 December 2002

National Priorities: Towards a National Vision

Australia's Peak Council for scientists and technologists welcomed the national research priorities released today by the Prime Minister.

Vice-President of the Federation of Australian Scientific and Technological Societies, Dr David Denham said, "The national research priorities underline the importance of science in Australian society. For some time FASTS has been calling for a national vision to shape the research directions of this country. The national research priorities are an important first step towards this vision".

"Australia needs a national plan for science to make us internationally competitive, while safeguarding the heritage of this continent and enhancing the quality of life for our population," he said.

The national priorities for An Environmentally Sustainable Australia, Promoting and Maintaining Good Health, Frontier Technologies for Building and Transforming Australian Industries, and Safeguarding Australia are consistent with the FASTS national research priorities submission to:

- Enable a sustainable environment
- Provide healthy lives and a long life expectancy for all Australians
- Overcome Australia's tyranny of distance
- Create an energy efficient Australia

Dr Denham said that "The implementation of the national priorities within budgetary constraints presents a significant challenge for government because all the research priorities identified are important and require commensurate funding."

"We particularly welcome the recognition of breakthrough science as a general priority, because it is well known that fundamental research produces unexpected benefits that often aren't realised until decades after the initial breakthrough. It is therefore important not to limit the horizons for basic research by being too prescriptive."

"However, we would expect that the national priorities will provide more direct guidance for planning by government research agencies which engage in applied and strategic research. FASTS looks forward to contributing to the discussion on implementing these research priorities", he said.

Dr Ken Baldwin , Chair, FASTS Policy (02) 6125 4702, (02) 62951562
Dr David Denham, Vice-President of FASTS (02) 6295 3014

Research Priorities For Australia's Future Prosperity (5 December 2002)
Prime Ministe, John Howard announcement of the National Research Priorities

Following extensive consultation the Government has selected four National Research Priorities to focus our investment on research in key areas that can deliver significant economic, social and environmental benefits to Australia.

This is the first time that the Commonwealth has set national research priorities, an exercise that will build on our national research strengths while seeking new opportunities in emerging areas.

The National Research Priorities are:

- An Environmentally Sustainable Australia;
- Promoting and Maintaining Good Health;
- Frontier Technologies for Building and Transforming Australian Industries; and
- Safeguarding Australia.

These priorities are aspirational in nature and will be recognised by all Australians as areas of endeavour that will help to deliver the kind of future we want.

Equally important is that a focus on excellence will underpin success in these priority areas. A broadly based and high quality research system that pursues excellence, particularly in the enabling sciences, remains fundamental.

Each of the themes has a number of priority goals:

An environmentally sustainable Australia is about transforming the way Australians use the nation's land, water, mineral and energy resources. This will depend on a better understanding of the environment and the application of new technologies to natural resource industries.

Promoting and maintaining good health focuses on promoting the healthy development of young Australians and on ensuring that older Australians enjoy healthy and productive lives. It is also about adopting healthier attitudes and lifestyles to promote well being across the lifecycle.

Frontier technologies for building and transforming Australian industries is about fostering creativity and innovation by supporting leading edge research in areas such as information and communication technology (ICT), bio-and geo-informatics, nanotechnology and biotechnology. ICT has an important role to play as a platform for ensuring the use and application of new technology to many industry sectors. Support for these areas of research will help stimulate vibrant new industries and ensure our future competitiveness.

Safeguarding Australia focuses on a range of research relevant to protecting Australia from terrorism, crime, invasive diseases and pests and threats to our critical infrastructure.

As a first step towards implementation, all Commonwealth research and research funding bodies will be asked to submit plans to the Government by May 2003 outlining how they propose to support the four priorities. The Government has also announced a major exercise to take stock of the state of Australian science by mapping science and innovation activities across the public and private sectors.

I have written today to State and Territory Premiers and Chief Ministers outlining the priority areas and seeking their support for this important national initiative.

The priorities will provide a catalyst for the formation of teams and networks of researchers across many disciplines in Australia and internationally – thereby stimulating further innovation and creativity.

The setting of National Research Priorities was foreshadowed in the Government's $3 billion Innovation Statement Backing Australia's Ability last year. Initial public consultations with around 800 researchers, industry groups and community representatives were followed by an examination of more than 180 public submissions. An expert committee chaired by Dr Jim Peacock, President of the Academy of Science, and including the Chief Scientist Dr Robin Batterham, submitted a short-list to the Government.

Although the priorities require particularly strong input from science, engineering and technology-based research, the social sciences and humanities will also play an important collaborative role in their implementation.

Science and Innovation is one of the Government's key strategic policy priorities. This year the Commonwealth will invest a record $5.1 billion on science and innovation, as initiatives in Backing Australia's Ability continue to be rolled out.

By harnessing the talents of our best and brightest we can entrench our current economic strength and create even greater opportunities for our children.

FASTS Workshop on "How to better run your professional society"

FASTS was running a series of workshop on how to better run your professional society. The FASTS workshop I attended in Canberra was very interesting and provided many ideas, experience, useful tips and got my mind racing around on what we could do within ASL to make our society work better for its members. Participants came from a wide variety of organisations, and each of us brought a different range of experiences on how societies can be run, depending on the type, aims, size and history of each society. The number of participants was not too large, which contributed to the success of the day. Topics covered included: success and challenges with managing societies, looking at workloads/employment, developing a media and communication strategy, databases and their possibilities, managing finances, working with volunteers, etc.

Talking and discussion sessions were interspersed with a media interview exercise, in which each of the participants was interviewed and filmed on the topic of their choice. The resulting film clips were analysed in terms of media 'grabs'; this provided a valuable insight into how a news story is being made. Despite our initial resistance to be interviewed, it was good to see that each of us came across quite convincingly and that the potential was there for every participant to deliver a strong and convincing message. I was also made aware of the network and media resources that FASTS has at its disposal to assist their member societies with; something we can draw on to advance ASL aims.

As a result of the workshop, I took the following ideas to the Executive for discussion:

- ◊ Employing someone to run the ASL secretariat and decrease workloads for Executive members.
- ◊ Suggestion for increased membership benefits.
- ◊ Position descriptions and plan for the society.
- ◊ Tips on cost cutting, databases, occasional papers, media, finance, fund raising and sponsorship, further resources.

These ideas were discussed at the teleconference on the 26th of February: Possible outcomes or further developments are to be reported in the next issue(s) of the newsletter.

Frederick Bouckaert

BOOK LAUNCH

'Managing Wetlands on Your Property'

NSW Minister for Land and Water Conservation, John Aquilina, congratulated the State Wetland Advisory Committee on the launch of its publication; 'Managing Wetlands on Your Property' in early February.

"This is a comprehensive guide and valuable land management tool," Mr Aquilina said. "The guide has been designed to fulfil the growing need for information on the management of wetlands, particularly on private property".

A recent global study estimated that the world's natural ecosystems are worth $US33 trillion ($A57 trillion). Of this, wetlands are said to be worth $US14.9 trillion ($A25 trillion) or 45 per cent of the total.

Wetlands cover 4.46 million hectares, or about 6 per cent, of the total landmass of NSW, and more than 96% these wetlands are located west of the Great Dividing Range.

'Managing Wetlands on Your Property' covers all areas of wetland management including; identifying wetlands, information gathering, management issues, benefits, strategies and objectives.

The guide is presented in plain English and also contains action plans and templates to allow land managers to record and track their wetlands management.

"Wetlands, which also include claypans and floodplains, are a natural resource for both agriculture and the environment," Mr Aquilina said.

"They are a vital part of the land's ecosystem fulfilling the roles of flood mitigation, drought security, ground water recharge and quality enhancement, as well as providing plant and wildlife habitats."

The booklet was launched in Deniliquin in the Murray valley by the Chair of the State Wetland Advisory Committee, Dr John Duggin. "The communities of the Murray valley, particularly in conjunction with the Murray Weltands Working Group, have achieved great results in the recognition and management of their local wetlands," Mr Aquilina said. "I congratulate Dr Duggin and the committee for their hard work over the past 18 months in preparing and developing this guide.

The State Wetlands Advisory Committee is supported by the Department of Land and Water Conservation.

For copies of the document, please contact Kylee Wilton at kwilton@dlwc.nsw.gov.au,

Ph: (02) 9228 6317 or Fax: (02) 9228 6140

FORTHCOMING CONFERENCES/WORKSHOPS

OVERSEAS

2003 – International Year of Freshwater

3rd World Water Forum is to be held at The Kyoto International Conference Hall, Kyoto, Japan from 16 to 23 March. See: http://www.worldwaterforum.org/eng/index.html

The Gordon Research Conference on Permeable Sediments is to be held 15 to 20 June at Bates College in Lewiston, Maine, USA. Information about conference location, travel logistics, conference format and online applications can be found at: http://www.grc.org/

Third Symposium for European Freshwater Sciences (SEFS3) is to be held at the University of Edinburgh from 13 to 17 July (excursion on 18 July). The Second Circular is now available at the SEFS3 website at http://www.sefs.info/

Organic Phosphorus 2003. 13 to 18 July to be held at Mont Verita, Ascona, Switzerland. See the Workshop website http://www.nwisrl.ars.usda.gov/OrganicP2003/ for details on how to register. Further information from Dr Darren Baldwin (Darren.Baldwin@csiro.au).

Symposium for European Freshwater Sciences, to be held from 13 to 18 July at the University of Edinburgh, UK. Web address: http://www.sefs.info/

Fourth International Symposium on Phosphate in Sediments. Organised by the Asociaci F3n Espa F1ola de Limnolog EDa the University of Sevilla, together with the University of Granada. This meeting will take place in Sevilla (Spain) from 9 to 12 September. If you are interested inform Laura Serrano (serrano@us.es) or Han Golterman golterman@wanadoo.fr

The 17th Biennial Conference of the Estuarine Research Federation (ERF) will be held 14 to 18 September, at the University of Washington in Seattle, Washington. The conference's theme is Estuaries on the Edge: Convergence of Ocean, Land, and Culture. For more information about ERF, please contact Joy Bartholomew at jbarth@erf.org or visit their web site: www.erf.org

International Conference on Water-Saving Agriculture and Sustainable Use of Water and Land Resources, to be held in Yangling, Shaanix, P.R. China from 26 to 29 October. Further information from the Conference Secretariat, Prof. Kang Shaozhong, kang62@public.xa.sn.cn

2004

29th International Association of Theoretical and Applied Limnology 8 to 14 August. (SIL): Lahti, Finland. Website: sil2004@latkk.helsinki.fi

7th INTECOL International Wetlands Conference at Utrecht University, The Netherlands, July 2004. This Conference will be organized under the auspices of the International Association of Ecology (INTECOL) under the title "Wetland Science and Water Resources Management". Please visit the web site and bookmark it: <http://www.bio.uu.nl/INTECOL> www.bio.uu.nl/INTECOL

AUSTRALIAN

2003 – International Year of Freshwater

Ancient Soils, New Solutions- a conference on soils, biodiversity and agriculture, to be held on 28 and 29 March at the Southee Complex, Sydney Showground, Sydney Olympic Park, Homebush Bay. Further information contact Salirian Claff at sclaff@nccnsw.org.au, or phone (02) 9279 2466

Australian Water Association (AWA) 20th Ozwater Convention & Exhibition *Innovations in Water.* To be held at the Burswood Resort, Perth, Western Australia, from 6 to 10 April. For further information email quitz@bigpond.com.au (Quitz Event Management), or phone (02) 9410 1302.

The Ninth International Conference on River Research and Applications - is being organised and sponsored by the CRCFE. The conference will be held 6 to 11 July in Albury, NSW. See http://www.conlog.com.au/NISORS/ for further information.

MODSIM 2003, The Biennial Congress of the Modelling and Simulation Society of Australia and New Zealand "Integrative Modelling of Biophysical, Social, and Economic Systems for Resource Management Solutions", to be held from 14 to 17 July at Jupiter's Hotel and Casino, Townsville.

River*symposium* 2003 Sixth International River Management Symposium, "Urban Rivers - balancing the expectations", to be held from 2 to 5 September in Brisbane.
See www.riverfestival.com.au/symposium

2003 National Conference of the United Nations Association of Australia will be held over two-days in Perth (WA) on 26 and 27 September. The theme of the conference is Fresh Water: *We'll all drink to that!*, with a focus to highlight the importance of establishing and maintaining fresh water resources.

The **Third Victorian Flood Management Conference** will be held in Horsham, Victoria, on the 8 to 10 October. See: www.vicfloodconference.com.au

A Memorial Symposium and Field Trip in Honour of Bill Williams - is being organized by the University of Adelaide (to arrive in Warrnambool for the Joint ASL/NZLS meeting) from 28 to 30 November. For more information contact Mike Geddes on mike.geddes@adelaide.edu.au

Joint 42nd Annual Australian Society for Limnology Congress and The New Zealand Limnological Society, to be held in Warrnambool, Victoria from 1 to 5 December. Further information from Belinda Robson (brobson@deakin.edu.au), Phone (03) 5563 3330 or Fax (03) 5563 3462.

Symposium on Urbanisation and Stream Ecology, to be held in Melbourne on 8 and 9 December. Further information from Chris Walsh (Chris.Walsh@sci.monash.edu.au), Phone (03) 9905 4091 or Fax (03) 9905 4196.

ASL VOLUNTEERS

The following members have volunteered to speak as experts on behalf of the ASL.

If you wish to be included on the list or amend your contact details, please contact:

Dr Richard Marchant (ASL Secretary)
Email: rmarch@mov.vic.gov.au

Prof Angela Arthington:
in stream flows, ecology of exotic fishes, conservation of rare fishes.
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Dr Max Finlayson:
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Dr Brian Timms:
lake geomorphology, coastal dune lakes, arid zone wetlands.
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Dr Lloyd Townley:
groundwater-surface water interaction.
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Phone (08) 9389 6377, Fax (08) 9389 6477, email: LTownley@Townley.com.au

A/Prof Keith F. Walker:
Murray-Darling basin rivers.
Department of Environmental Biology, University of Adelaide, Adelaide SA 5005.
Phone (08) 8303 5595, Fax: (08) 8303 4364, email: keith.walker@adelaide.edu.au

ASL MEMBERSHIP FORM

Fill out the form below and send onto the Treasurer/Membership Officer (address below), or alternatively go to the ASL website (http://www.asl.org.au/asl_member.htm), follow the link to 'Membership application via the web'. Fill in the details on the form, including credit card details, and submit. ASL is not registered for GST, therefore ASL does not charge GST.

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Qualifications:.....

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Limnological interests: .....

Student declaration

I am a full time student at.....

Signed .....

Student status confirmed by Supervisor.....

Signed ..... Date.....

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Membership Rates for 2002/2003

Member:	$ 40.00
Student Member:	$ 20.00
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Margaret Hart
Treasurer/Membership Officer
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Mulgrave VIC 3170

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Mobile 0419 506 254

ELECTRONIC NEWSLETTER APPLICATION FORM

If you are a member of the ASL and want to receive your newsletter electronically, then please fill in the form below. Members who do not want to receive an electronic version, and would rather still receive the paper version will continue to do so, but you are encouraged to also fill in and send the form below (we do not have plans to phase out the paper version).

I am a member of the ASL and my name is:.....

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- Rich Text Format (.rtf)[1] - Word compatible ☐
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[1] Rich Text Format (.rtf) is a format that can be opened in any word processor, although slight variations in layout may occur in different programs.

[2] Portable Document Format (.pdf) is a format that looks and prints exactly as the publisher intended. It can be opened using Adobe Acrobat viewer which is free and can be downloaded from their website.

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Mobile 0419 506 254

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